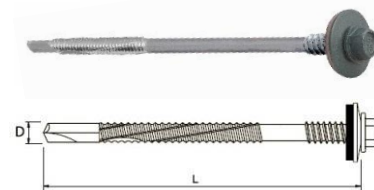


## GTR 25 SP A19

SELF-DRILLING SCREWS  
FOR SANDWICH PANELS

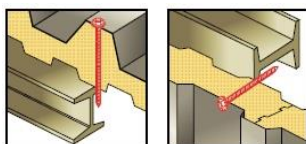


### PRODUCT DESCRIPTION


Self-drilling, self-tapping screws (double thread) made of surface-hardened carbon steel, drilling point #6, with fine working thread and enlarged hex head, with integrated aluminum washer with vulcanized EPDM. Additional corrosion protection: gRey.coat coating.

### APPLICATION

Designed for mounting sandwich panels to hot-rolled steel structures of very high thickness. Designed for use in environments with atmospheric corrosivity categories C1, C2, C3, C4 according to PN-EN ISO 12944-2: 2001 standard.



### LENGTH OF SCREWS

Fastener type		Dimensions D x L [mm]	Maximum drill capacity [mm]	Maximum thickness of fixed elements [mm]	
			DC	MTmin	MTmax
GTR 25 SP	A19	6,3/7,0 x 160	25,00	17	100
GTR 25 SP	A19	6,3/7,0 x 200	25,00	57	140
GTR 25 SP	A19	6,3/7,0 x 240	25,00	97	180
GTR 25 SP	A19	6,3/7,0 x 280	25,00	137	220

*The working length of the fastener is calculated from the maximum thickness of the DC substrate.*

## EUROPEAN TECHNICAL APPROVAL ETA-13/0199

### CHARACTERISTIC CAPACITIES OF SHEAR ATTACHMENTS AND PULL-OUT FROM STEEL SUBSTRATE, DISPLACEMENT OF THE SCREW HEAD DUE TO HEAT EXPANSION

Element II: $t_{II}$ w [mm]		4,00	5,00	8,00	10,00	12,00	14,00	≥ 15,00
Element I: $t_{n,1}$ lub $t_{n,2w}$ [mm]	SHEAR $V_{R,k}$ w [kN]	0,50	1,29	1,29	1,29	1,29	1,29	1,29
		0,55	1,29	1,29	1,29	1,29	1,29	1,29
		0,63	2,35	2,35	2,35	2,35	2,35	2,35
		0,75	2,50	2,50	2,50	2,50	2,50	2,50
		0,88	2,50	2,50	2,50	2,50	2,50	2,50
		1,00	2,50	2,50	2,50	2,50	2,50	2,50
	PULL-OUT $N_{R,k}$ w [kN]	0,50	3,65	3,65	3,65	3,65	3,65	3,65
		0,55	3,65	3,65	3,65	3,65	3,65	3,65
		0,63	4,60	4,60	4,60	4,60	4,60	4,60
		0,75	5,45	5,45	5,45	5,45	5,45	5,45
		0,88	5,45	5,45	5,45	5,45	5,45	5,45
		1,00	5,45	5,45	5,45	5,45	5,45	5,45
Max. head displacement $u^*$ depending on the sandwich panel thickness in [mm]		1	1	1	1	1	1	1
	40	1	1	1	1	1	1	1
	50	1	1	1	1	1	1	1
	60	2,5	2,5	2,5	2,5	2,5	2,5	2,5
	70	2,5	2,5	2,5	2,5	2,5	2,5	2,5
	80	2,5	2,5	2,5	2,5	2,5	2,5	2,5
	90	4	4	4	4	4	4	4
	100	4	4	4	4	4	4	4
	120	4	4	4	4	4	4	4
	≥140	4	4	4	4	4	4	4

Element I - sheet steel of S280GD grade; S320GD; S350GD according to EN 10346.

Element II - steel sheet steel of grade S235 according to EN 10025-1 or S280GD; S320GD; S350GD according to EN 10346.

In order to determine the design load, the characteristic load factor must be divided by the safety factor  $\gamma_m = 1.33$ .

## NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2017/0022

### CHARACTERISTIC CAPACITIES OF SHEAR ATTACHMENTS AND PULL-OUT FROM STEEL SUBSTRATE, DISPLACEMENT OF THE SCREW HEAD DUE TO HEAT EXPANSION

Element II: $t_{II} w$ [mm]		4,00	5,00	6,00	7,00	8,00	9,00	≥ 10,00	
Element I: $t_{n,1} lub t_{n,2w}$ [mm]	SHEAR $V_{R,k} w$ [kN]	0,50	1,29	1,29	1,29	1,29	1,29	1,29	1,29
		0,55	1,29	1,29	1,29	1,29	1,29	1,29	1,29
		0,63	2,35	2,35	2,35	2,35	2,35	2,35	2,35
		0,75	2,50	2,50	2,50	2,50	2,50	2,50	2,50
		0,88	2,50	2,50	2,50	2,50	2,50	2,50	2,50
		1,00	2,50	2,50	2,50	2,50	2,50	2,50	2,50
	PULL-OUT $N_{R,k} w$ [kN]	0,50	3,65	3,65	3,65	3,65	3,65	3,65	3,65
		0,55	3,65	3,65	3,65	3,65	3,65	3,65	3,65
		0,63	4,60	4,60	4,60	4,60	4,60	4,60	4,60
		0,75	5,45	5,45	5,45	5,45	5,45	5,45	5,45
		0,88	5,45	5,45	5,45	5,45	5,45	5,45	5,45
		1,00	5,45	5,45	5,45	5,45	5,45	5,45	5,45
Max. head displacement $u^*$ depending on the sandwich panel thickness in [mm]	30	1,5	1	1	1	1	1	1	
	40	1,5	1	1	1	1	1	1	
	50	1,5	1	1	1	1	1	1	
	60	4	2,5	2,5	2,5	2,5	2,5	2,5	
	70	4	2,5	2,5	2,5	2,5	2,5	2,5	
	80	4	2,5	2,5	2,5	2,5	2,5	2,5	
	90	6	4	4	4	4	4	4	
	100	6	4	4	4	4	4	4	
	120	6	4	4	4	4	4	4	
	≥140	6	4	4	4	4	4	4	

Element I – steel plate s280gd; s320gd; s350gd according to: en 10346.

Element II – steel plate s235 according to: en 10025-1 or steel plate s280gd; s320gd; s350gd according to: en 10346.

To define a design load should divide the value of the characteristic load by a safety factor  $\gamma_m = 1,33$ .

## OTHER FEATURES

BASE MATERIAL:	HOT ROLLED STEEL PROFILE
SIZE OF HEX HEAD:	8 mm
MINIMUM THICKNESS OF STEEL BASE:	4,0 mm
MAXIMUM DRILLING CAPACITY:	25,0 mm
ADDITIONAL CORROSION PROTECTION:	gRey.coat
CORROSIVITY CATEGORY:	C4
TECHNICAL OPINION ON CORROSION PROTECTION:	02248/16/Z00NZM
PAINTING POSSIBILITY:	YES
THICKNESS OF POLYESTER PAINT:	50 µm
TIGHTENING TORQUE:	6 Nm
RECOMMENDED SPEED OF THE TOOL WITHOUT LOAD:	1200 rpm
WASHER DIAMETER (ALUMINUM A19):	19 mm



ETA



DWU/DoP



KDWU



ZKP



РОССТРОЙ  
Техническое свидетельство

TC



POCC



SZU